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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/578,236 | 05/24/2000 | Marion Sterner | M1025/7001 | 5409 |

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EXAMINER

SHIPSIDES, GEOFFREY P

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1732

DATE MAILED: 11/06/2002

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/578,236

Applicant(s)

STERNER ET AL.

Examiner

Geoffrey P. Shippides

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 17-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4, 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in Paper No. 9 is acknowledged.
2. Claims 17-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 9.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 12 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

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Claim 12 teaches, "said active substance renders said film usable for 'smart' packagings" which is unclear. It is not clear as to what is required for a film to be usable for "smart" packaging. The specification does not teach exactly what is required for a film to be usable for "smart" packaging. The specification only states that "smart" packagings are activated after their production to have different properties. The specification also gives examples, but does not clearly define what constitutes "smart" packaging. The specification further has not enabled one having ordinary skill in the art to produce a film for "smart" packaging. The specification does not name any materials that are suitable for "smart" packaging. Clarification and/or correction are required. Further, the applicant may wish to cite prior art references that teach the concept of "smart" packagings that also teach a clear definition of the term.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,814,207 (Siol et al.).

Siol et al. teaches a process of coating a shaped article with a coating of scratch resistant and weather resistant film (Abstract). Siol et al. teaches an embodiment where a plastic panel is extruded followed by the continuous coating of the panels, which may still be at elevated temperatures, but which should be below the glass transition

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temperature of the plastic panel. Siol et al., however, also teaches that with very fast cures, it may be possible to do the coating also at temperatures above the glass transition temperature of the polymer (Column 8, lines 16-27). A plastic panel constitutes a plastic film.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,814,207 (Siol et al.).

Siol et al. teaches a process of coating a shaped article with a coating of scratch resistant and weather resistant film (Abstract). Siol et al. teaches an embodiment where a plastic panel is extruded followed by the continuous coating of the panels, which may still be at elevated temperatures, but which should be below the glass transition temperature of the plastic panel. Siol et al., however, also teaches that with very fast cures, it may be possible to do the coating also at temperatures above the glass transition temperature of the polymer (Column 8, lines 16-27). A plastic panel constitutes a plastic film.

With regard to claims 1-3, even if Siol et al. does not teach all aspects of the claims, Siol et al. does teach a process that would result in one having ordinary skill in

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the art to find the instantly claimed process obvious. It is well known in the art to coat plastic films with various coatings downstream of the extrusion of these plastic films. Even if a panel does not constitute a film (and if it does not, then the term "film" should be defined in the instant application) it would have been obvious to one having ordinary skill in the art to also produce plastic films in the manner as taught by Siol et al. as a panel has both films and panels has analogous structures.

With regard to claim 4, although the coating mixture as taught by Siol et al. does not specifically teach that the coating improves the adhesion of ink or other chemical products onto the film, it is the examiner's assertion that the coating of Siol et al. does improve the adhesion of at least some chemical product, as every material has an affinity to some other particular chemical, and thus the coating of Siol et al. would intrinsically improve the adhesion of some other chemical products on to the film.

With regard to claim 6, every coating is going to produce some degree of protection or "barrier effect". The coating mixture as taught by Siol et al. is scratch and weather resistant, and so is produces a "barrier effect" against the absorption of water (or water vapor).

11. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art (Admission) in view of U.S. Patent No. 4,814,207 (Siol et al.).

Admission teaches, "Plastic films are currently widely used, particularly for packaging which are used mainly to package food products." (Page 1, lines 5-6 of the instant specification). Admission further teaches that plastic films with improved characteristics are also known in the art. Admission teaches plastic films with improved

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adhesion of inks and printing dyes, with "barrier effect", and with "smart" packaging capabilities (Page 1, lines 10-28 of the instant specification). Admission further teaches that "production of plastic films having these improved characteristics can be based upon the surface application of substances on plastic films at the time of their use, i.e., long after their production." (Page 2, lines 3-5 of the instant specification).

With regard to claim 1, Admission teaches that the application of "active substances" to a plastic film is well known in the art, but does not teach the application of active substances to the plastic film down stream of the extrusion of the plastic film while the plastic film is still above ambient temperature. Admission also teaches problems with the adhesion of the active substances to the film at this down stream point in the process. It is, however, well known in the art to apply coating substances to an extrusion to produce a well-connected coated extrudate and Siol et al. is cited as evidence of this. Further, it is well known in the art that a raised temperature of plastic substrates increases the likelihood of a strong bond between a substrate and a coating.

Siol et al. teaches a process of coating a shaped article with a coating of scratch resistant and weather resistant film (Abstract). Siol et al. teaches an embodiment where a plastic panel is extruded followed by the continuous coating of the panels, which may still be at elevated temperatures, but which should be below the glass transition temperature of the plastic panel. Siol et al., however, also teaches that with very fast cures, it may be possible to do the coating also at temperatures above the glass transition temperature of the polymer (Column 8, lines 16-27).

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It would have been obvious to one having ordinary skill in the art at the time of invention to modify the prior art process of producing food packaging films by applying active substances to the extruded plastic film directly after the extrusion process while the plastic film substrate is still at a raised temperature as taught by Siol et al. in order to produce an active substance coated film that has a better connection.

With regard to claims 2 and 3, Siol et al. teaches the coating of an extruded substrate either after the glass transition temperature or before the glass transition temperature downstream of an extruder. It is clear from the teachings of Siol et al. that the point of coating is a result effective variable based upon the type of material used, the type of cure, etc. It would have been obvious to one having ordinary skill in the art at the time of invention to determine the optimal point for coating of a plastic film with active substance as taught by Admission based upon the exact type of active substance, plastic film, and the desired characteristics of the finished film and to determine this point through routine experimentation.

With regard to claims 4-13 and 16, it is clear from the Admission that all of these active substances are well known in the art for the coating of plastic films and that the particular coating produces a particular desired result. It would have been obvious to one having ordinary skill in the art at the time of invention to coat the plastic film as taught by Admission by any of these "active substances" as are well known in the art and taught by Admission on to the plastic film after extrusion of the film while the film is still above ambient temperature as taught by Siol et al. in order to produce a plastic film

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with improved characteristics as taught by Admission but with a better connected coating of active substance.

With regard to claim 14, it is well known in the production of films to coat films on both sides to produce the desired characteristic on both sides of the film. It would have been obvious to one having ordinary skill in the art at the time of invention to coat both sides of the film as taught by Admission in order to have the characteristic on both sides of the film.

With regard to claim 15, it is well known in the art to encapsulate reactive material in microcapsules in order to ensure that the reactive material does not react until desired (the microcapsule being broken when desired). It would have been obvious to one having ordinary skill in the art at the time of invention to use the "active material" as taught by Admission in the form of microcapsules in the cases where the "active material" is highly reactive in order to prevent the material from reacting before being coated on to the plastic film.

Conclusion

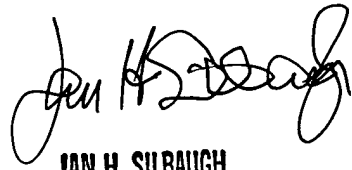
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey P. Shipsides whose telephone number is 703-306-0311. The examiner can normally be reached on Monday - Friday 9 AM till 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H Silbaugh can be reached on 703-308-3829. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Geoffrey P. Shipsides/gps
November 4, 2002


JAN H. SILBAUGH
SUPERVISORY PATENT EXAMINER
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11/04/02